IN THE CLAIMS:

Claims 1-18 (cancelled)

19. (currently amended) A digital communication link pre-establishment control routine, that is automatically executed by the control processor of an integrated access device (IAD), through which packetized voice and data services are supplied to a customer site, said routine being operative to automatically set operational parameters of said IAD to conform with those of various pieces of equipment employed by a service provider to deliver said packetized voice and data services, said routine comprising the steps of:

(a) providing the capability of determining the line rate of said digital communication link based upon stored vender-supplied a priori negotiation information and based upon a testing of plural line rates, and attempting to determine ~~determining~~ the line rate of said digital communication link based upon one [[or]] [[both]] of said stored vendor-supplied a priori negotiation information and [[a]] said testing of ~~all possible~~ plural line rates, but, in response to not determining the line rate of said digital communication link based upon said one of said stored vendor-supplied a priori negotiation information and said testing of plural line rates, determining the line rate of said digital communication link based upon the other of said stored vendor-supplied a priori negotiation information and said testing of plural line rates;

(b) determining the type of encoding to be employed in accordance with an examination of a priori known operating modes and selectable options for said device;

(c) identifying the type of digital communication device communication protocol to be employed based upon the type of encoding determined in step (b);

(d) ~~locating~~ identifying a voice gateway and voice transport protocol based upon a standards message based protocol or an iterative search through a virtual circuit address table; and

(e) configuring ~~one or more special features~~ communication parameters of said IAD that conform with the line rate of said digital communication link determined in step (a), the type of encoding determined in step (b), and the type of digital communication device communication protocol identified in step (c), so as to provide communication capability between said IAD and said ~~to increase throughput or enhance performance for the type of digital communication device communication protocol identified in step (c) and~~ voice gateway ~~located~~ identified in step (d).

20. (currently amended) The routine according to claim 19, wherein step [[(b)]] (c) comprises determining whether said digital communication link is using high level data link control (HDLC), asynchronous transfer mode, or a customized (framed) ATM transport protocol.

21. (currently amended) The routine according to claim [[19]] 20, wherein step (c) further comprises identifying the type of digital communication device communication protocol to be employed by examining a data stream for the presence of encoding/decoding framers known a priori and stored in memory, identifying payload specific protocol, determining whether the type of line is ATM, and identifying ATM line parameters.

22. (cancelled)